

NOTES ON CARABIDÆ

BY MELVILLE H. HATCH

TRACHYPACHUS Mots. (*Trachypachys* and *Trachypachis* Lac.)

The American species have recently been reviewed by Van Dyke (Pan-Pac. Ent. I, 1925, p. 111-112). I am indebted to Dr. Walther Horn of the Deutsches Entomologisches Institut for the loan of a Transbaikalian example of *T. zetterstedti* Gyll, (*transversicollis* and *laticollis* Motsch.) which I rely upon to establish the cospecificity of this species with our *inermis* Mots. (*holmbergi* Mann., *oregonus* and *specularis* Csy.). Van Dyke (l.c.) is vague or misleading as regards the number of series of elytral punctures. *T. sleveni* VanD. has eleven series of which the fifth, seventh, and ninth terminate before the middle and the second and sixth at about the apical fourth. *T. zetterstedti* Gyll. has from three to nine rows, the majority of specimens in my series having either four or seven. In counting these rows of punctures I disregard the three series of widely spaced "dorsal" punctures. *T. gibbsii* Lec. has about twelve rows.

CARABUS (s. str.) GRANULATUS L.

Since 1924 we have been taking occasional but repeated specimens of this Palæarctic species in Seattle, Washington to the east and northeast of the University campus. It has been recorded previously from North America only from New Brunswick (Harrington, Can. Ent. XXIV, 1891, p. 112). In Crotch's key (Trans. Am. Ent. Soc. V, 1876, p. 248) it runs to *limbatus* Say and *vinctus* Weber of the subgenus *Lichnocarabus*. From these it may be distinguished by possessing only two entire and three interrupted elytral costæ.

CARABUS (ARCHICARABUS) NEMORALIS Mull.

This Palæarctic species has been known in Seattle, according to Professor Trevor Kincaid, since about 1909 and is now our commonest large carabid. It has a wide distribution in North America. Leng (Cat. Col. Am. n. of Mex. 1920, p. 45) records it from New Brunswick, New Jersey, and New York. I have specimens in my collection from Ontario (Toronto, 1921), Massachusetts (Boston, 1921), and Michigan (Ann Arbor, 1924). Gibson (44th Ann. Rep. Ent. Soc. Ont. for 1913, Ent. Rec., 1914,

p. 8) records it from Quebec (Montreal). Van Dyke (Pan-Pac. Ent. I, 1924, p. 78) records it from California (San Francisco, 1919). It belongs to the same subgenus as *tædatus* Fab., from which it is most readily distinguished by its more robust form and the violaceous tinge of the base of the pronotum.

***Monillipatrobus punctatus* Hatch, gen. et sp. nov.**

Monillipatrobus gen. nov. A new genus of Patrobini. Metaëpimeron not attaining mesocoxa. Head with two setiferous punctures above eye, feebly constricted behind eyes, basal sulcus feeble but evident. Mandible with a single setiferous puncture towards distal portion of scrobe. Antenna less than half the length of the body, about as long as head and pronotum, with the segments from the distal portion of the basal segment more or less densely setiferous, submonilliform, the segments from the base to the apex respectively 1-2, 4-5, 1-2, 5-7, 5-6, 5-6, 5-6, 5-6, 5-7, 5-7, 5-12 as wide as long. Abdominal segments entirely corneous. Mesoepimeron broad as compared with *Diplous* (*Platidius*). Maxillary palp with last segment truncate, longer than penultimate; galea with two segments subequal. Integuments densely punctate. Pronotum with basal impressions foveiform, margin not incised in front of hind angles. Elytra incompletely margined at base. Metacoxæ contiguous. Type: *M. punctatus* sp. nov.

Distinguished from *Patrobus*, *Diplous*, and *Patroboidea* Van Dyke (Pan-Pac. Ent. II, 1925, p. 67) by its punctate integuments and submonilliform antennæ, from *Patroboidea* by its truncate, not acute, terminal palpal segments. It has the flattened pronotum of *Diplous* and the deep basal impressions of *Patrobus*, in which respects it resembles *Patroboidea*.

Monillipatrobus punctatus sp. nov. Length 5.6-6.4 mm. Black, legs and antennæ rufo-piceous. Above and below coarsely moderately densely punctate. Head shining, constricted behind, the constriction more densely punctate, the neck behind the groove impunctate. Pronotum feebly alutaceous, over four-fifths as long as wide, broadest about apical third, base about six-sevenths as wide as apex; side margin with three long setæ, one at hind angle and two in front of middle; side margins narrow, arcuate in front, sinuate behind, hind angles obtuse, anterior angles rounded; basal impressions deep, foveiform, connected by a shallow transverse impression that is interrupted by a pair of longitudinal carinæ, one on either side of the median line; median line extending almost from base seven-eighths of way to apex, somewhat wider and more impressed behind and separated from transverse impression by a distinct carina on either side; disc flattened; anterior transverse

impression vague, scarcely more punctate than rest of surface. Elytra widest just behind middle, more strongly alutaceous, octo-impresso-crenulato-punctato-striate, the striæ confused and obsolete towards extreme apex, the intervals punctate, the third interval with two setiferous punctures at apical 15% and basal fourth, the marginal stria with six long and numerous shorter setæ, the long setæ divided into a subhumeral and a subapical group. Venter alutaceous, punctate. Male with, and female without, the basal three protarsal segments dilated and spongy pubescent beneath.

Type, male (Seattle, Wash. IV-25-1930) and allotype, female (Seattle, Wash.) in Hatch collection. Two paratypes (Seattle, Wash.) in O. B. Johnson collection.

TRECHUS (s. str.) OBTUSUS Er.

This Palaearctic species, not previously recorded from North America, was first taken by Professor Kincaid in Seattle in 1927. I take it in abundance in the grass right along the side of my house. It may be distinguished from our native species by the absence of basal impressions on the pronotum.

PTEROSTICHUS JOHNSONI Ulke.

Described (Ulke, Ent. Amer. V, 1889, p. 50; Piper, Proc. Ent. Soc. Wash. XIII, 1911, p. 62-64) from Mehama, Oregon, from wet moss on boulders and in gravel in the spray of water falls. Piper (l.c.) took another specimen at Horsetail Falls, Oregon. I have an extensive series from Green River Gorge (King Co.), Washington, taken in the gravel of talus slopes constantly wetted by the spray of falls coming over the rim of the gorge as well as under rocks by streams fed by the same falls. This species is so unlike any of the other American species of the genus that I propose for it a new subgenus, named in honor of its discoverer.

Subgenus Orsonjohnsonus Hatch, nov.

Metaëpisternum shorter than wide; elytra with from three to six dorsal punctures on both third and fifth intervals, the intervals interrupted behind each puncture; side margin of pronotum with a single seta; distal tarsal segment without hairs beneath. Type: *Pterostichus johnsoni* Ulke.

PTEROSTICHUS (Omaseus) VULGARIS L.

This Palaearctic species, not previously recorded from North

America, was first taken by Professor Kincaid in Seattle in 1927, where it is now abundant. Additional specimens have been seen from Puyallup and Tacoma (1930) and Mt. Vernon, Green River Gorge, and Robe, Washington, (1931), as well as Marylhurst near Portland, Oregon (1931). The species is very common in Europe, where there is a single record (Horner, Entomologist XVII, 1884, p. 238-239 [*melanarius* Ill.]) of it eating strawberry fruit. Such a habit must be very unusual, and we have no evidence of any such in Washington. *Omaseus* may be distinguished from *Melanius* (*Pseudomaseus* Chaud., *Omaseus* Lec., Casey, and Leng nec Steph.), the American subgenus to which it is apparently most closely related, by the presence of one or two setæ on either margin of the ventral surface of the last tarsal segment.

Platynus (*Paragonum*) *belleri* Hatch, sp. nov.

Above shining æneous or virido-æneous. Head impunctate; antennæ black, pubescent from apical half of third segment; head through eyes wider than apex of pronotum. Pronotum nearly three-fifths as long as wide; side arcuate, feebly oblique behind; margin reflexed, narrowly so in front, more widely so behind; the foveæ of hind angles large, their outer edge formed by the reflexed margin; pronotum smooth, impunctate, except for the side margin and the basal foveæ which are densely rugose; mid-dorsal impressed line attaining neither base nor apex, crossed by an evident impressed line toward apex. Elytra very finely microreticulate with evident humeri, very feebly wider behind middle; the striæ impressed, finely punctate; the first (sutural), third, fifth, and seventh interstriae more or less densely set with coarse seta-bearing punctures, the second interstria with from four or five to a dozen similar punctures, the fourth interstria rarely with one or two punctures. Venter and legs viridescent, shining, finely alutaceous, impunctate; second to fifth visible abdominal sternites with single seta-bearing punctures on either side of the middle towards the hind margin. Protarsal segments feebly dilated and squamose beneath (♂) or unmodified and simply setose beneath (♀). Length 6.5 mm.

Type male, allotype female and 135 paratypes (in collection of author): Chase Lake, Snohomish County, Washington, running on red sphagnum mat beset with *Drosera* within about two meters of the edge of the mat. Type and allotype dated June 1928; paratypes dated June and August 1928, May and June 1930, April 1931.

Named in honor of Mr. Jack Beller, who first brought the species to my attention in 1928. Though he searched diligently in similar situations in other local bogs Mr. Beller was unable to detect this interesting species anywhere but in the one bog, which is no more than an acre or so in extent. The color of the beetles matches so closely with that of the sphagnum mat that they are difficult to detect until one has had his attention called to them. *P. belleri* is separated from all other Nearctic species of *Platynus* with which I am acquainted, as well as from other species of the subgenus *Paragonum*, by the coarse punctation of the alternate elytral interstriae.

In the light of the present species the four subgenera of *Platynus* Bon. which Casey (Mem. Col. IX, 1920, p. 5, 99) united under the term "*Agonum* Bon." may be more adequately defined as follows:

- A¹. Pronotal fovea obsolete, the pronotum towards the posterior angles evenly concave; form broader; Cal.....*Leucagonum* Csy.
 A². Pronotal fovea evident; form narrower.
 B¹. Pronotal fovea small, distant from margin of pronotum
 C¹. Dorsum brilliant metallic.....*Agonum* Bon.
 C². Dorsum black, rarely feebly æneous....*Melanagonum* Csy.
 B². Pronotal fovea large, concave, formed externally by the more widely reflexed side margin.....*Paragonum* Csy.

PLATYNUS (OXYPSELAPHUS) PUSILLUS Lec.

This species is distinct from the Palæarctic *obscurus* Herbst. The two species may be distinguished as follows:

- A¹. Basal impressions and base of pronotum coarsely densely punctate; elytral striae crenately punctate; elytral intervals impunctate; length 5-6 mm.; Europe, (?) Siberia. (*oblongus* Schaum, *tæniatus* Payk., *pallidulus* Chd.).....*obscurus* Hbst.
 A². Basal impressions of pronotum nearly impunctate; base of pronotum coarsely sparsely punctate; inner elytral striae impunctate, outer ones finely punctate; elytral intervals with setiferous punctulæ; length 6-7 mm.; Washington and Canada to New York and Illinois. (*Stomis americanus* Lec. nec Lap.; *oblongus* Hamilton Can. Ent., XX, 1888, p. 61, nec Schaum; *obscurus* Hamilton, Trans. Am. Ent. Soc., XXI, 1894, p. 354, nec Hbst.).....*pusillus* Lec.